REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 28-40 are currently pending. Claims 1-27 have been canceled without prejudice; and Claims 28-40 have been added by the present amendment. The additions to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, Claims 11 and 12 were objected to as containing informalities; Claims 1 and 27 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0029264 to Ogino et al. (hereinafter "the '264 application"); Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the '264 application, further in view of the Lee et al. reference; Claims 3, 20, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '264 application in view of U.S. Patent No. 6,389,096 to Hoffman et al. (hereinafter "the '096 patent"); Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the '264 application in view of U.S. Patent Application Publication No. 2003/0083568 to Frigo et al. (hereinafter "the '568 application"); Claims 5-7, 10-12, 22, 25, and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '264 application in view of U.S. Patent No. 6,553,248 to Gagnon et al. (hereinafter "the '248 patent") in view of the '069 patent; Claims 8 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '264 application in view of the '568 application and the '096 patent, further in view of U.S. Patent No. 6,141,398 to He et al. (hereinafter "the '368 patent"), U.S. Patent No. 5,430,783 to Hu et al. (hereinafter "the '783 patent"), and U.S. Patent No. 6,658,082 to Okumura et al. (hereinafter "the '082 patent"); Claims 9 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '264 application in view of the '248 patent and the '096 patent, further in view of the '398 patent; Claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the '264

application in view of the '248 patent and the '096 patent, further in view of U.S. Patent No. 6,907,099 to Kling et al. (hereinafter "the '099 patent"); and Claims 14-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '264 application in view of the '248 patent.

Applicants respectfully submit that the objections to Claims 11 and 12 are rendered moot by the present cancellation of those claims.

Applicants respectfully submit that the rejections of Claims 1-27 are rendered moot by the present cancellation of those claims.

The present amendment also sets forth new Claims 28-40, including independent Claims 28, 34, and 38, for examination on the merits.

New Claim 28 is directed to an X-ray computed tomographic system, comprising: (1) a first X-ray computed tomographic apparatus; (2) a second X-ray computed tomographic apparatus; and (3) a data managing system connected to said first and second X-ray computed tomographic apparatuses via a network. Further, Claim 28 clarifies that the first X-ray computed tomographic apparatus includes (1) an X-ray irradiating unit configured to irradiate an X-ray to a subject while rotating about the subject; (2) an X-ray detecting unit having a plurality of detecting element arrays aligned in a slice direction, in each of which a plurality of detecting elements, each generating electrical charges based on an incident X-ray, are aligned in a channel direction; (3) a data acquisition unit, having a plurality of data acquisition element arrays, configured to read out the electrical charges from the plurality of detecting elements by using a certain number of data acquisition element arrays among the plurality of data acquisition element arrays and to generate raw data or projection data based on the electrical charges; and (4) a first transmission unit configured to transmit, via the network to the data managing system, the raw data or projection data and appended information including the number of data acquisition element arrays used when reading out

the electrical charges. Further, Claim 28 clarifies that the data managing system includes (1) a first reception unit configured to receive the raw data or projection data and the appended information; (2) a storage unit configured to store the raw data or projection data and the appended information received; (3) a determining unit configured to determine, based on the appended information, whether image reconstruction by using one of the raw data and the projection data is possible in the second X-ray computed tomographic apparatus; and (4) a second transmission unit configured to transmit one of the raw data and the projection data, and the appended information to the second X-ray computed tomographic apparatus when the determining unit determines that reconstruction is possible. Finally, Claim 28 clarifies that the second X-ray computed tomography apparatus includes a second reception unit configured to receive the raw data or projection data and the appended information; and a reconstruction unit configured to perform image reconstruction based on the raw data or the projection data and the appended information received. Claim 28 is supported by the originally filed specification and does not add new matter.[1]

Applicants respectfully submit that new Claim 28 (and dependent Claims 29-33) patentably define over any proper combination of the previously cited references. In particular, Applicants will address the teachings of the '264 application and the '096 patent with respect to the limitations recited in new Claim 28.

The '264 application is directed to a medical image service method for performing a preset image process, using an image processing server 500, on a medical image transmitted from a certain device of a certain clinic via a network, storing the processed image, and transmitting the stored image to the certain device of the certain clinic when there is a request to do so from the clinic. Thus, the '264 application discloses a method for sharing the use of reconstructed image data. Further, Applicants note that the '264 application discloses that a

[1] See, e.g., Figure 10 and the discussion related thereto on page 40 of the specification.

single device transmits a medical image to the image processing server 500 via the network, and receives a medical image from the server 500.

However, Applicants respectfully submit that the '264 application fails to disclose a first X-ray computed tomographic apparatus that includes a first transmission unit configured to transmit appended information including the number of data acquisition element arrays used when reading out electrical charges, as recited in new Claim 28. Further, Applicants respectfully submit that the '264 application fails to disclose that a data managing system includes a determining unit configured to determine, based on the appended information, whether image reconstruction by using one of the raw data and the projection data is possible in a second X-ray computed tomographic apparatus, as recited in new Claim 28.

In this regard, Applicants note that, regarding previously pending Claim 6, which recited a judging unit to judge, based on the appended information, whether image reconstruction based on one of the raw data and the projection data is possible in the X-ray computed tomographic apparatus, the Office Action relies on paragraph [0221] of the '264 application as disclosing this limitation. However, Applicants respectfully submit that paragraph [0221] of the '264 application does not disclose the determining unit recited in Claim 28. Rather, paragraph [0221] merely states that the manager of the image processing server apparatus 500 may have separate contracts with individual image-sending subscribers and image-receiving subscribers such that image-sending subscribers are permitted to apply image processing to medical images they send to the server. Thus, the subscribers have no need to have contracts with one another. Further, the '264 application discloses that the image processor server apparatus 500 applies image processing to the medical images sent by the subscribers and sends the medical images after the processing to the image-receiving subscribers via the network. Further, paragraph [0221] of the '264 application gives an example of the various image processing functions that can be performed on an image sent to

the image processing server. However, paragraph [0221] of the '264 application fails to mention appended information and fails to disclose a determining unit that is configured to determine, based on appended information, whether image reconstruction by using one of raw data and the projection data is possible in a second X-ray computed tomographic apparatus. The '264 application does not disclose any unit that considers whether image reconstruction is possible in any X-ray computed tomographic apparatus, and does not disclose that such a determination might be based on appended information, as required by Claim 28. Rather, paragraph [0221] of the '264 application merely discloses contracts with various image sending and image receiving subscribers.

The '096 patent is directed to a method for changing at least one of the number of image slices and in-plane resolutions available in an imaging system having a radiation source and a detector ray having an x-direction in the z-direction that is configured to acquire attenuation measurements of an object between the radiation source and the detector array. As noted by the outstanding Office Action, the '096 patent discloses a CT imaging system having a multi-slice array that includes a plurality of detector elements, as shown in Figures 4 and 5 of the '096 patent. As disclosed in column 4 of the '096 patent, outputs of detector elements in adjacent rows of a detector array can be combined in the z-direction to produce a slice or slices representing a selected thickness slice of a volume. Further, combining detector elements in the z-direction does not effect the in-plane resolution, while having narrower detector elements increases in-plane resolution.[2] Further, the '096 patent discloses that a communication path 56 is limited by one or more of the number of communication signal lines from the detector array 18 to the data acquisition system 32, a processing capability of the data acquisition system 32, and a signal bandwidth from the data acquisition system 32 to the image reconstructor 34.

[2] See the '096 patent, column 4, lines 53-67.

However, Applicants respectfully submit that the '096 patent fails to disclose a first X-ray computer tomographic apparatus that includes a first transmission unit configured to transmit, via a network to the data managing system, appended information including the number of data acquisition element arrays when reading out the electrical charges, as recited in Claim 28. The '096 patent does not disclose that such information is transmitted from a first X-ray computed tomographic apparatus to a data management system. Rather, the '096 patent merely discloses that there is a communication path between the detector and the image reconstructor and that the maximum limit of the communication path is referred to as the maximum bandwidth limit or maximum data bandwidth. However, the '096 patent does not disclose that the number of data acquisition element rays when reading out the charges is transmitted to the data management system. First, Applicants note that the image reconstructor 34 is not the data management system recited in the claims, and that the '096 patent does not disclose that the number of element arrays used is transmitted, only that the actual data is transmitted to the image reconstructor.

Further, Applicants respectfully submit that the '096 patent fails to disclose that the data management system includes a determining unit configured to determine, based on the appended information, whether image reconstruction by using one of the raw data and the projection data is possible in a second X-dray computed tomographic apparatus, as recited in amended Claim 28.

Thus, no matter how the teachings of the '264 application and the '096 patent are combined, Applicants respectfully submit that the combination does not teach or suggest a first X-ray computed tomographic apparatus having a first transmission unit configured to transmit appended information including the number of data acquisition element rays used when reading out the electrical charges. Further, Applicants respectfully submit that the combination of the '264 application and the '096 patent fails to disclose a data management

system having a determining unit configured to determine, based on the appended information, whether image reconstruction by using one of the raw data in the projection data is possible in a second X-ray computed tomographic apparatus, as recited in Claim 28. Accordingly, Applicants respectfully submit that Claim 28 (and dependent Claims 29-33) patentably define over any proper combination of the '264 application and the '096 patent. Further, Applicants respectfully submit that the '568 application, the '248 patent, the '398 patent, the '783 patent, the '082 patent, and the '099 patent fail to remedy the deficiencies of the '264 application and the '096 patent, as discussed above.

New Claims 34 and 38 recite limitations analogous to the limitations recited in Claim 28. Accordingly, for reasons analogous to the reasons stated above, Applicants respectfully submit that new Claims 34 and 38 (and all associated dependent claims) patentably define over any proper combination of the cited references.

Thus, it is respectfully submitted that independent Claims 28, 34, and 38 (and all associated dependent claims) patentably define over any proper combination of the cited references.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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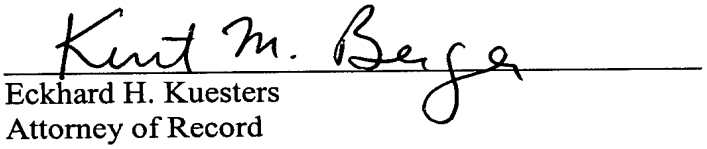

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